

SEQUENCE LISTING

<110> ISHIDA, ISAO
TOMIZUKA, KAZUMA
KUROIWA, YOSHIMI
OHSHIMA, TAKESHI
SUZUKI, MUTSUMI
ITOH, KUNIO

<120> HUMAN CYTOCHROME P450 GENE-INTRODUCED MOUSE

<130> 051023-0115

<140> 10/049,373
<141> 2002-02-12

<150> PCT/JP00/05424
<151> 2000-08-11

<150> JP 11-229094
<151> 1999-08-13

<160> 86

<170> PatentIn Ver. 2.1

<210> 1
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A4

<400> 1
gtctgtctgg gtttggaaagg

20

<210> 2
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A4

<400> 2
tctgtgttgc tctttgctgg

20

<210> 3
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A5

<400> 3
atagaagggt ctgtctggct gg

22

<210> 4
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A5

<400> 4
tcagctgtgt gctgttgttt gc

22

<210> 5
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A7

<400> 5
accctgaaat gaagacgggc

20

<210> 6
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A7

<400> 6
gagttaatgg tgctaactgg gg

22

<210> 7
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A cDNA

<400> 7
caagaccctt ttgtggaaaa

20

```
<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
      detecting CYP3A cDNA

<400> 8
tctgagcgtt tcattcacca                                20

<210> 9
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
      detecting CYP3A4 cDNA

<400> 9
gccatagaga caaggcaag                                20

<210> 10
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
      detecting CYP3A4 cDNA

<400> 10
tcagttaggc tggtggattg                                20

<210> 11
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
      detecting CYP3A5 cDNA

<400> 11
ctggtcaccc accatgtgta                                20

<210> 12
<211> 20
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A5 cDNA

<400> 12
tatcctctca cctgcccttg

20

<210> 13
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A11 cDNA

<400> 13
gacacaattg tcaaggatg g

21

<210> 14
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A11 cDNA

<400> 14
gctgacaaac aagcagggat

20

<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A13 cDNA

<400> 15
atgtacctgc cctttgggag

20

<210> 16
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A13 cDNA

<400> 16
ggagtgggtt ttctggttga 20

<210> 17
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for detecting CYP3A16 cDNA

<400> 17
tggtctccca tatctcaggc 20

<210> 18
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for detecting CYP3A16 cDNA

<400> 18
caatgtacca gtgagagcgc 20

<210> 19
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for detecting CYP3A25 cDNA

<400> 19
agaagaagag aaaggggagc c 21

<210> 20
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for detecting CYP3A25 cDNA

<400> 20
cattcaccac catgtccagg 20

<210> 21
<211> 20

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A25 cDNA

<400> 21
aaaccagaag aaccgagtgg 20

<210> 22
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detecting CYP3A25 cDNA

<400> 22
gtgacaggtg ccttattggg 20

<210> 23
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 679

<400> 23
tagggtaag acatggtggc 20

<210> 24
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 679

<400> 24
ggaggagagg gagatgttgat 21

<210> 25
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 9736

<400> 25
agatgtgtgg ccttgttaag g 21

<210> 26
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for clone 9736

<400> 26
tttctggatg tcactggtcc 20

<210> 27
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for clone 29H12

<400> 27
tagaagccca actttgggac 20

<210> 28
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for clone 29H12

<400> 28
agccaacaag agggtgtacg 20

<210> 29
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for CYP3A25

<400> 29
ggcctgaact gctaaaggaa agcta 25

<210> 30
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
CYP3A25

<400> 30
ggtgaacatc cacaactacc attgag

26

<210> 31
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 703

<400> 31
acaggaggta ggtgacactg ttg

23

<210> 32
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 703

<400> 32
gggttgttgg actcacagag ag

22

<210> 33
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 703

<400> 33
gacctcacac tggcaagaag tc

22

<210> 34
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 703

<400> 34
atggtgctca gcaatagtag gg

22

<210> 35
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 220H2

<400> 35
gcaggataacc agatatgtgg c

21

<210> 36
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 220H2

<400> 36
aaacccctta aacccacagc

20

<210> 37
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 220H2

<400> 37
ggtgtcacac gcctttcatc

20

<210> 38
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 220H2

<400> 38
ctgctcaaag gagaacaggg

20

<210> 39
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 130A11

<400> 39
ccacacattc tgccaatcag 20

<210> 40
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 130A11

<400> 40
agtacagcac cgggctaaag 20

<210> 41
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 130A11

<400> 41
gcaacaataa cccaactgcc 20

<210> 42
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 130A11

<400> 42
caggtggtaa taagctgcc 20

<210> 43
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 29B19

<400> 43
gcatgaagca ctgtctcgta 20

<210> 44
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 29B19

<400> 44
ggggtcctcc tttcaatatac c 21

<210> 45
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 29B19

<400> 45
tctctgcctc tcatcttagc c 21

<210> 46
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 29B19

<400> 46
tgtgtgtggg ttgggtgtctc 20

<210> 47
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 173D23

<400> 47
cggtctcac aaatagaccc 20

<210> 48
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for clone 173D23

<400> 48
ccaggttatc gctggtcttc 20

<210> 49
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for clone 86H16

<400> 49
tcacgacctt atgcaaagac c 21

<210> 50
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for clone 86H16

<400> 50
cggaagtagt tgcttcagc 20

<210> 51
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for clone 86H16

<400> 51
tcagtcgtta ccagcctttt g 21

<210> 52
<211> 20

```

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 86H16

<400> 52
gagtgggctc tggtcatttc                                         20

<210> 53
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 204L9

<400> 53
tctcagacata gttcaggggc                                         20

<210> 54
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
clone 204L9

<400> 54
tttcttcag ctctgggtgg                                         20

<210> 55
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: T7 primer for
clone 741

<400> 55
gttcctctgt aattctaattg tacatccact ggttgaaagg tctatgataa                                         50

<210> 56
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for
lambda DOWN12

```

<400> 56
ttcgggaggc cagtactatt c 21

<210> 57
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SP6 primer for lambda DOWN12

<400> 57
cacacacgtc ttttggcag 20

<210> 58
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for Cyp3aY

<400> 58
acggtttatg catgcttaggt g 21

<210> 59
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for Cyp3aY

<400> 59
tccatgacaa taaggctgcc 20

<210> 60
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for identification of cyp3A deleted strain

<400> 60
tgttctcctc ttccctactct cc 22

<210> 61
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
identification of cyp3A deleted strain

<400> 61
tgaaggtagt gaccagtgtt gg

22

<210> 62
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
CYP3A4 and MDR1

<400> 62
ctcagaaaact gtcaaggatg c

21

<210> 63
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
CYP3A4 and MDR1

<400> 63
cctaaaggaa acgaacagcg

20

<210> 64
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SfiI linker

<400> 64
ggccgcwgcg gcc

13

<210> 65
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
COL1A2

<400> 65
cgttaggtacc caagtcaggc ttacatTTTA tttgtg

36

<210> 66
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
COL1A2

<400> 66
cgttaggtacc gagaatgagt ttgaccTTAT ccattt

36

<210> 67
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
AF006752

<400> 67
cgttagatcc atgtttctgg aataacttgct gttattAG

38

<210> 68
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
AF006752

<400> 68
caaaaacaaac actattatca cttcacAA

28

<210> 69
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
preparing PS11 probe

<400> 69
agctttgggg gacaaaacat

20

<210> 70
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for preparing PS11 probe

<400> 70
caaaaacagtc tgaacagaca ttcc 24

<210> 71
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for identification of recombinant

<400> 71
tttcttaggaa actgttaagaa aggttaagagt 30

<210> 72
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for identification of recombinant

<400> 72
tggtattcac tttaatatca cattatctcc 30

<210> 73
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for confirmation of recombinant

<400> 73
tatcctttt aaagtttattt tgaacactca 30

<210> 74
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
confirmation of recombinant

<400> 74
atggtttcta caaagatcgt tatgtttac

30

<210> 75
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
confirmation of recombinant

<400> 75
atttattattt gtcctgtttg tatctttcct

30

<210> 76
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
confirmation of recombinant

<400> 76
atggtttcta caaagatcgt tatgtttac

30

<210> 77
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
for RNR2

<400> 77
tcgagaattc agtagctggc actatcttt tggccatc

38

<210> 78
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer
for RNR2

<400> 78	
tcgagaattc ggagaaaagaa cacacaagga ctcggtc	37
<210> 79	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Primer for	
identification of recombinant	
<400> 79	
tggatgtatc ctgtcaagag acc	23
<210> 80	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Primer for	
identification of recombinant	
<400> 80	
cagacactct atgcctgtgt gg	22
<210> 81	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Primer for	
detection of human chromosome 7	
<400> 81	
gcaagactgt gagccagtga	20
<210> 82	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Primer for	
detection of human chromosome 7	
<400> 82	
ggctgcatca gcatcatcta	20
<210> 83	
<211> 20	

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detection of human chromosome 14

<400> 83
agtgagataa gcagtggatg 20

<210> 84
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
detection of human chromosome 14

<400> 84
gttgtgctac tcccatca 20

<210> 85
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
pgk

<400> 85
atagcagctt tgctccattcg 20

<210> 86
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer for
gfp

<400> 86
ttctctccttg cacatagccc 20